

TECHNICAL SUPPORT DOCUMENT OF APPLICATION FOR RENEWAL

Air Quality Control Permit No. 45606

Sturm, Ruger and Company, Inc.

I. INTRODUCTION

This Class II renewal operating permit is for the continued operation of a small arms manufacturing facility owned and operated by Sturm, Ruger and Company, Inc. located in the city of Prescott in Yavapai County, Arizona. This is a stationary facility.

A. Company Information

1. Company Address: 200 Ruger Road, Prescott, AZ 86301-6181
2. Facility Address: 200 Ruger Road, Prescott, AZ 86301-6181

B. Background

This permit renewal will supersede Class II Air Quality Permit #1001677.

The facility is located in an attainment area for all pollutants.

C. Learning Sites

In accordance with ADEQ's Environmental Permits and Approvals Near Learning Sites Policy, the Department conducted an evaluation to determine if any nearby learning sites would be adversely impacted by Sturm, Ruger and Company, Inc. Learning sites consist of all existing public schools, charter schools and private schools at the K-12 level, and all planned sites for schools approved by the Arizona School Facilities Board. The learning sites policy was established to ensure that the protection of children at learning sites is considered before a permit approval is issued by ADEQ.

The Department did not identify any learning sites within two miles of the facility.

II. FACILITY DESCRIPTION

A. Process Description

Sturm, Ruger and Company, Inc. is a small arms manufacturing facility which includes grinding and heat treating of metal parts and the test firing of the small arms manufactured at the facility.

B. Air Pollution Control Equipment

Table 1: List of Air Pollution Control Equipment

EQUIPMENT TYPE	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF Manufacture	Equipment ID Number
Wet Dust Collector	6,000 CFM	UNI-WASH	UCBD-60	16306-A1	06-01-96	0565
Wet Dust Collector	7,500 CFM	UNI-WASH	UCBD-75	16306-B	06-01-96	0567
EQUIPMENT TYPE	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF Manufacture	Equipment ID Number
Dust Collector	17,670 CFM	Farr & Cincinnati Fan	Tenkay Mark III - 60L & HDBI-300	84D61024-2 & 8903378	NA	GD-1
Scrubber	29,500 CFM	Duall Industries	FW-303-34	10000	2004	GD-2
Dust Collector	1,213 CFM	Ruemelin	550	37962	NA	130
Wet Dust Collector	15,000 CFM	UNI-WASH	UC-150C	3220	07-1990	2401
Wet Dust Collector	2,000 CFM	UNI-WASH	UCB-20	14414-A-3	07-29-94	44

III. COMPLIANCE HISTORY

At this time, there are no cases or alleged violations associated with his facility.

IV. EMISSIONS

The emission calculations for the permit review process relied upon emission factors derived from the Environmental Protection Agency's (EPA) Compilation of Air Pollution Emission Factors (5th Edition), Sturm, Ruger and Company, Inc. and mass balance calculations. This facility is a synthetic minor source for NO_x criteria pollutants based on the generator being operated no more than 720 hours per year.

Table 2: Summary of Potential to Emit Pollutants based on permit limits

POLLUTANTS	EMISSIONS-TONS/YEAR
NO _x	20.65
CO	2.46
SO ₂	0.26
VOC	0.02
PM ₁₀	67.13

V. APPLICABLE REGULATIONS

The applicable regulations listed in Table 3 below were identified by the Department. If necessary, the source is required to list any additional regulations that may be applicable.

Table 3: Verification of Applicable Regulations

UNIT	DATE OF MANUFACTURE	CONTROL DEVICE	RULE	VERIFICATION
Generators	NA	None	A.A.C. R-18-2-719	Existing internal combustion engines are subject to this rule
Boilers	NA	None	A.A.C. R-18-2-724	The boilers which are less than 250 MMBtu/hr but in the aggregate greater than 0.5 MMBtu/hr, are subject to this rule
Mobile Sources		Water and other equivalent controls	<u>A.A.C.</u> R18-2-801 R18-2-802 R18-2-804	These regulations are applicable to all mobile sources
Fugitive Dust Sources		Water and other equivalent controls	<u>A.A.C.</u> R18-2-602 R18-2-604 R18-2-605 R18-2-606 R18-2-607 R18-2-614 R18-2-702	These standards are applicable to all fugitive dust sources.
Other Periodic Activities		Particulate Matter control, proper selection of approved paint materials, hazardous air pollutant control	<u>A.A.C.</u> <u>R18-2-702.B1</u> <u>R18-2-726</u> <u>R18-2-727</u> <u>R18-2-1101.A.8</u>	These standards are applicable to all periodic activities including abrasive blasting, use of paints and demolition/renovation of asbestos-containing buildings.
Metal Fabrication and Finishing Source			<u>40 CFR Part 63</u> <u>Subpart</u> <u>XXXXXX</u>	Based on Table 1, in 40 CFR § 63.11514 the source category of NAICS of 332994 Small Arms Manufacturing is not listed in this Table based on the Federal Register conversions of each category to NAICS codes. Further commentary and EPA response clarified this such that “If the primary activities of their facilities do not place them in one of the identified source categories, they are not subject to the rule.” Based on this comment, this facility, therefore is not subject to this rule.

VI. PREVIOUS PERMITS AND CONDITIONS

A. Previous Permits

Table 4: Previous Permit Changes

Date of Permit Issuance	Permit Number	Application Basis
March 7, 2003	1001677	Operating permit
April 8, 2003	29509	Administrative Amendment
September 8, 2004	33915	Closed Antelope Hills Facility
October 5, 2005	36627	Minor Revision
March 9, 2006	39049	Minor Revision

B. Previous Permit Conditions

TABLE 5: Previous permit conditions

Permit Condition	Determination				Remarks
	Delete	Keep	Revise	Streamline	
Attachment "A"			√		General Provisions – updated to reflect the most recent Attachment "A" language
Attachment "B" Section I			√		Updated to reflect the most recent permitting format and language
Attachment "B" Section II	√				Furnaces and Wax Assemblies being removed. Product Mfg transferred to east coast facility.
Attachment "B" Section III	√				Boilers (Autoclaves and Regenerators) being removed. Product Mfg transferred to east coast facility.
Attachment "B" Section IV			√		Generators – updated to reflect the most recent permitting format and language
Attachment "B" Section V	√				Spray Painting Operations Removed
Attachment "B" Section VI	√				Abrasive Blasting Operations Removed
Attachment "B" Section VII			√		Miscellaneous Activities – updated to reflect the most recent permitting format and language
Attachment "C"			√		The equipment list was updated to reflect equipment changes since the last permit was issued

VII. MONITORING AND RECORDKEEPING REQUIREMENTS

- A. The Permittee must keep logs of the generator's hours of operation of the facility.
- B. The Permittee is required to maintain logs of all emission related maintenance activities performed on the emissions units, and make them available to ADEQ upon request
- C. All records, analyses, and reports must be retained for a minimum of five years from the date of generation. The most recent two years of data shall be kept on-site.

VIII. LIST OF ABBREVIATIONS

A.A.C.	Arizona Administrative Code
CO	carbon monoxide
EPA	Environmental Protection Agency
hr	hour
lb	pound
lb/hr	pound(s) per hour
NO _x	nitrogen oxides
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns
PTE	potential-to-emit
SO _x	sulfur dioxide
tpy	ton(s) per year
VOC	volatile organic compounds